



Left: Dr. Pauline Mills McGibbon is robed by Robin Ross, Vice-President and Registrar, after being installed as Chancellor by Dr. John H. Sword, right, the Acting President. The oath of office was administered by C. Ian P. Tate, President of the University of Toronto Alumni Association.



Development of Business School 'should have a high priority' the Board of Governors decides

The Board of Governors, after receiving from the faculty of the School of Business a report on the future of the school, last week issued the following statement:

"The faculty of the School of Business, at the request of the Board of Governors, has prepared a report on the development of the School over the past twenty years and prospects for the further development of management programs at the University of Toronto. The report has been submitted to and considered by the Board which welcomes the initiative the School has displayed in presenting a carefully-argued, constructive and challenging report. The Board recognizes that a graduate program in Business Administration and Management Science, of high quality is important to the University, and, as the Economic Council of Canada has recently pointed out, to society at large. The Board has agreed that, within the current financial constraints under which the University is operating, the further development of the School of Business should receive a high priority."

"The Acting President, Dr. J. H. Sword, has been asked to refer the report to a group of senior colleagues for detailed examination and firm recommendations. Dr. Sword has indicated that a search committee to recommend a new director of the School will be re-established shortly."

The text of the report follows:

Preface

This brief is respectfully submitted in response to a request from the Board of Governors calling upon the Faculty of the School of Business to elaborate on the School's past, present and future prospects. The Faculty has interpreted this request as both an opportunity and a challenge. On the one hand, the Faculty welcomes the opportunity to state the case for an outstanding school of business at this University and to articulate what we believe it will take to raise our School to that standard. On the other hand, we accept the challenge of clarifying the progress which the School has made to date, progress which we are convinced has been underestimated in many quarters both within and beyond the University.

NOVEMBER 11 DEADLINE
University of Toronto Bulletin is published by the University News Bureau, Room 225, Simcoe Hall. All material for the next issue should be in the hands of the editor, Mrs. Winogene Ferguson (928-2102) by noon today. The next editorial deadline is noon, November 11.

The brief was prepared by a Faculty sub-committee, chaired by the Acting Director (Dr. John G. Crispo). The executives of both the Graduate Business Club and the Alumni Association were consulted and endorse the brief's contents. In the final form the brief was approved unanimously by a special meeting of the Faculty on September 24.

The School of Business: An Opportunity and a Challenge

Canada does not now have an outstanding graduate school of business by international standards. The country does have a few business schools which have made considerable progress in developing sound management programs, but none which can really claim to rank among the world's most renowned schools. This shortcoming in business education in Canada is both undesirable and inexcusable in a country of such commercial significance, size, and wealth. Canada should have at least one graduate school of business of international stature.

Among the attributes such a school should demonstrate are the following: first, the ability to attract the country's potentially brightest business students for advanced education in management; second, the capacity to graduate Ph.D.'s for demanding teaching, research and consulting positions; and third, a faculty able and committed to sound research into the country's most pressing business problems.

The University of Toronto is in a better position than any other university in this country to develop this type of school. The University has both an international reputation and scholarly depth and strength in most, if not all, of the disciplines necessary to complement a first-class business school.

In addition, the University's close proximity to the heartland of the Canadian business and commercial communities gives it an incomparable advantage. Equally important,

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A & S Council Committees

Results of recent elections for faculty members on the General Committee and the Curriculum Committees, Council of the Faculty of Arts and Science, have been announced by the Office of the Registrar.

General Committee

There were two tie votes in departmental elections to the General Committee: Frances Dominique Burton and W. N. Irving in Anthropology and R. K. Logan and David Spring in Physical Sciences. In each case, the candidates were expected to reach agreement between themselves, making a run-off election unnecessary. There were no nominations, thus no election, in Geology.

Successful departmental and divisional candidates, the names of those elected by acclamation marked by asterisks, follow: R. F. Garrison*, J. A. Hellebust*, J. E. Guillet, H. J. Mason*, P. H. Roosen-Runge*, Milena Dolezelova*, J. D. Duffy*, M. Van Rossen Hoogendoek*, J. A. Walker*, A. M. Baker*, Victoria Mueller-Carson*, Michael Marrus, J. R. Blackburn*, S. B. Chandler*, N. Derzko, J. Van Seters*, R. A. Imlay*, E. J. Kremer*, R. E. Kreps*, Peter Silcox*, A. N. Doob*, E. E. Best, R. M. Smith*, D. Struk, J. L. Turk, R. R. Langford*, M. J. Hare, P. F. Maycock, P. P. M. Meincke, J. H. Corbett*, W. C. Graham*, P. H. Salus*, G. E. Bentley, J. B. Conacher, Charles Hanly, H. R. MacCallum, J. M. Rist, F. E. Sparshott, D. C. Baillie, R. L. Johnston, S. McLean, G. F. West, S. G. Whittington, Raymond Bretton, William Dean, Oswald Hall, C. B. Macpherson, J. Munro, H. Ripstein, N. P. Badenhuizen*, C. S. Churcher*, J. J. Furedy*, D. F. Mettrick*, P. V. Rangneker*, A. M. Wall*.

Curriculum Committees

Humanities: T. H. Adamowski, A. G. Falconer, K. O. Kee, K. W. McNaught, R. M. H. Shepherd, J. S. Wood.

Interdisciplinary Studies: W. R. C. Harvey, J. L. Levenson, K. O. May, G. F. McGuigan, A. J. Poe, Fred Wilson.

Life Sciences: Leyla de Toledo, T. S. Parsons, P. Sarkar, J. H. Sparling, G. M. Telford, G. B. Thornton.

Physical Sciences: R. L. Armstrong*, J. E. Dove*, R. E. Pugh*, E. V. Swenson*, J. R. Vanstone*, S. H. Vosko*.

Social Sciences: J. L. Carr, G. T. Gilbert, J. M. Joyner, D. V. Smiley, J. E. Smith, K. N. Walker.

Graduate School divisional meetings

All members of the graduate faculty of each division, and all graduate students enrolled in the departments, centres and institutes constituting the division, may take part in these meetings, which will be held in the Senate Chamber, Simcoe Hall, on the following dates:

Division I (The Humanities): Wednesday, Nov. 10, at 2 p.m.

Division II (The Social Sciences): Tuesday, Nov. 9 at 10 a.m.

Division III (The Physical Sciences): Wednesday, Nov. 10 at 10 a.m.

Division IV (The Life Sciences): Tuesday, Nov. 9 at 2 p.m.

The agenda for each meeting will include: (1) Report of the Dean; (2) Report of the Associate Dean; and (3) Other business.



Report on the School of Business its present and future prospects

(Continued from page 1)

however, is the fact that the University already has a firm foundation upon which to build a leading school.

The School of Business at the University of Toronto now has the potential to become a leading business school not only in this country but also in North America. Both the scholarly competence and the practical relevance of the faculty have improved markedly over the past few years. One excellent measure of the School's progress is its capacity to attract first rate scholars in competition with some of the best business schools in North America. In its research, in its teaching and in its related activities, the faculty has demonstrated that it now represents the nucleus of what can become one of North America's ranking business schools.

We strongly recommend that the University commit itself to build on this potential to develop an outstanding graduate school of business. To realize this objective, the School will require additional support both from the University and from the business community. From the University the School requires funds for additional administrative, faculty and support staff and certain associated costs. The amount of money involved is not insignificant during this period of financial stringency, but increased enrolment should generate sufficient income to maintain and eventually expand the surplus which the School currently produces for the University.

With this commitment from the University, the School is confident that it can generate substantial financial support from the business community for the remainder of the School's needs. Business has been generous in its support of other schools, some of which have produced little substance from that support. We believe the business community is more than willing to support the kind of school we have in mind, particularly since our School now has a research based faculty which is gradually acquiring more respect in the business world. We believe we can build on that respect and attract the necessary outside support over and above that which we must have from the University itself.

The School of Business at the University of Toronto should either be put in a position to become a leading business school by North American standards or be phased out of existence. In keeping with what almost all other leading North American universities have done, we trust the University will opt for the former alternative. We would welcome the opportunity and the challenge of building the kind of school this one can become with a modest additional commitment on the part of the University.

Canada's Need for Outstanding Schools of Business

In its fifth annual report, the Economic Council of Canada emphasizes the comparative lack of education and training of Canadian managers in relation to their U.S. counterparts. The Council attributes a good deal of the lower productivity of Canadian business to this differential.

As a result of its analysis, the Council especially decries the state of business and commerce programs at the University level. In the Council's view, the total resources devoted to university business education and related research have been "woefully inadequate". Indicative of its overall condemnation of the continuing lack of university commitment in this area is the following extract:

The formal educational attainments of people in the owner-manager group appear to be, on average, lower in Canada than in the United States, with the gap wider for this group than for almost all other categories of the Canadian labour force. Canada appears to be particularly far behind the United States in the relative scale of resources devoted to the field of university business education and university research in this area.

At the first-degree level, U.S. universities have recently been graduating about four times the number of business administration and commerce students produced in Canada per thousand of population. For all disciplines, the number of first-degrees being produced in the United States is proportionately about one and one-half times that in Canada. It has been estimated that at the graduate level for the Master of Business Administration degree, the ratio has been seven to one over recent years.

There is clearly a need for more emphasis on business education in institutions of higher learning in this country. In and of itself, however, this general need does not make the case for one or more outstanding graduate business schools. It is therefore appropriate to ask whether a high priority should be assigned to having at least one outstanding business school in Canada. We believe the answer to this question to be affirmative. On the other hand, it can be argued that business and culture in the

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Dr McGibbon hopes 'to emulate' the 23 Chancellors preceding her

With all the dignity and pageantry reserved for such occasions, Dr. Pauline Mills McGibbon was installed as the 24th Chancellor of the University of Toronto at a special Convocation on Oct. 26. After thanking the graduates for the honour of election, Dr. McGibbon recalled something of the history of the title "Chancellor". It was begun, she said, by Edward the Confessor and is still in use in the church, the law, in government, and in universities, although, she pointed out, in universities "the office like the monarchy, has changed from a ruling role to one of reigning".

Dr. McGibbon continued:
"As I look back on the six Chancellors of the University that I have known — Sir William Mulock, the Hon. H. J. Cody, the Rt. Hon. Vincent Massey, Dr. Samuel Beatty, Dr. F. C. A. Jeanneret, and Dr. Omund Solandt — I realize that each made a very real contribution to it by giving of his time and talents, yet carefully remaining impartial among the Uni-

A BUST OF DR. CHARLES H. BEST, co-discoverer of Insulin and one of the University's most famous sons, is unveiled by Mrs. Best in the Medical Sciences Building during the University celebration of the great discovery's 50th anniversary. Ruth Lowe Bookman, New York, was the sculptress.



Varied events over six days mark Insulin's 50th anniversary

Honorary degrees for distinguished physicians and scientists connected with the hormone insulin and diabetes, the unveiling of a plaque and of a bust of Dr. Charles Best, a display of paintings by the late Sir Frederick Banting, who with Dr. Best co-discovered insulin just 50 years ago, all marked the University of Toronto's celebration of the anniversary last week. There were also dinners and other social gatherings to mark the occasion but the most notable aspect of all was the feast of knowledge that was offered to those who attended scientific and clinical meetings during the week.

The seminar on Insulin Action, which spanned the first three days, attracted

180 registrants. The subject matter was highly esoteric, dealing, as much of it did, with diverse views on the mechanisms by which insulin is produced and achieves its diverse effects on body chemistry.

The Refresher Course for physicians and others involved in the care of diabetic patients was much closer to the problems of the doctor's office and the hospital bed. The meetings were lively and revealed the many different views that are held about the complications of diabetes. At the Gairdner Lectures on Friday and Saturday, the subject matter was wide ranging in both content and treatment and included the reminiscences of Dr. Charles Best of the early days of insulin.

Search for chairman of German department

The position as chairman of the Department of Germanic Languages and Literatures will become vacant as of June 30, 1972. The President has approved the appointment of the following Search Committee to recommend a chairman for the Department:

Associate Dean J. H. Parker, (chairman), Graduate School

Dean A. D. Allen, Arts and Science

Prof. E. K. Catholy, Department of German, St. Michael's

Prof. G. W. Field, Department of German, Victoria College

Prof. E. A. Joliat, Department of French

Prof. D. A. Joyce, Department of German, Trinity College

Prof. M. MacLure, Department of English

Prof. H. N. Milnes, Department of German, University College

Recommendations or suggestions as to possible candidates should be made, either verbally or in writing, to any member of the committee by Nov. 5, 1971.



THE INSTALLATION OF DR. PAULINE MILLS McGIBBON

Top Row: Newly installed, the Chancellor addresses Convocation; later, with her husband, Donald W. McGibbon, she chats with the Hon. William Ross Macdonald, Lieutenant-Governor of Ontario. Dr. Omund Solandt, the former Chancellor, gave the principal address.

Middle Row: At a luncheon in her honour on the day of the installation, the Chancellor is greeted by Dr. J. Francis Leddy, President, University of Windsor. Representatives of 19 other universities in Canada, Britain and the United States also brought greetings from their institutions. At right (directly above) Dr. McGibbon welcomes the guests. Seated are Mrs. J. H. Sword and William B. Harris, Chairman of the Board of Governors.

Bottom Row: In the photograph at left, the Chancellor (in dark dress, middle foreground) mingles with the hundreds of guests who attended a Hart House reception in her honour after the installation. At the right, with her husband, she says the last farewells.



EXHIBITIONS

Exhibition of paintings by Eugenia Zundel (Mrs. David Mankovitz) from the series "War and Peace" and "Homage to a People". Edward Johnson Building. Until Nov. 30. Proceeds from sales will be applied to the scholarship fund of the Faculty of Music.

Art at the Service of Intention. Graphic designers at work: 200 samples of Canadian graphic design. Erindale College. From Nov. 3 to Nov. 24.

Paul Rainey. Young Oakville artist's exploration of colour and spatial relationships. Erindale College. To Nov. 14.

Survey of work produced by architects Fairfield and Dubois. Faculty of Architecture, Urban and Regional Planning and Landscape Architecture. Nov. 4 to 15. Reception 8 to 10 p.m. on Nov. 4.

Program of Festival Québécois Nov 13 to 21

Festival Québécois, an expression of the growing interest of the University of Toronto community in the life and culture of French-speaking Canadians and an event launching the new interdisciplinary course "Understanding Quebec" in the Faculty of Arts and Science, will be held on the St. George Campus from Nov. 13 to 21.

A committee headed by co-chairmen Prof. Geoffrey Payzant and Neville S. C. Dickinson, Assistant to the President, has organized the Festival with the co-operation and support of the University,

the Varsity Fund, and the governments of Quebec, Ontario and Canada. The honorary patrons are University Prof. Claude Bissell and Dr. Roger Gaudry, Rector of the Université de Montréal. Students of U de M have been invited to take part in the Festival, which includes in its program theatrical performances, concerts, recitals, films, displays of art and books, debates, seminars, panel discussions, athletic competitions, and a "rock pub".

All of the events are open to everyone without charge, except for admission to a hockey game between University of

Toronto and Université de Montréal teams.

Festival Québécois is sponsored by Hart House in association with the Department of Interdisciplinary Studies, with the co-operation and support of the Varsity Fund, Students' Administrative Council, Secretary of State for Canada, Government of Quebec, Government of Ontario, Laidlaw Foundation, McLean Foundation, Bank of Montreal, Composers', Authors' and Publishers' Association of Canada, Canadian Music Society, and the Office pour la diffusion du film québécois.

Scientists whose careers have been closely associated



*Dr. Campbell

Dean Chute

*Dr. Defries

Dr. Hamilton

*Dr. Krahel

Dr. Best

COMING EVENTS

NOVEMBER

4 THURSDAY

Lectures
History

"Bentham's Place in 19th Century Thought". Prof. J. H. Burns, Department of History, University College, London. Room 2127 Sidney Smith Hall. 2 p.m. (SGS and History)

Science

"Science, Histoire et Utopie au 18^e siècle". Prof. Jacques Roger, University of Paris, Visiting Professor, Wesleyan University. 122 U.C. 4 p.m. (Graduate French, SGS, and History and Philosophy of Science and Technology)

Physics

"The Physics of Weak Interactions". Prof. H. Pietschmann, Institute for Theoretical Physics, University of Vienna. Room 102 McLennan Physical Laboratories. 4.10 p.m. (SGS and Physics)

Medieval

"How Should One Handle Religion in Writing and Teaching History?" Prof. Robert Brentano, University of California at Berkeley. 138 U.C. 4.15 p.m. (Medieval Studies and SGS)

Philosophy

"Facts, Events and their Identity Conditions". Prof. Neil Wilson, Department of Philosophy, McMaster University. Combination Room, Trinity College. 7.30 p.m. (SGS and Philosophy)

Seminar
Computer

"Thrashing in a Multiprogrammed Paging System". Prof. Brian Randell. 202 McLennan Physical Laboratories. 3 p.m. (Computer Science)

5 FRIDAY

Lectures
Medieval

"Piety in Thirteenth and Fourteenth Century Rome and Lazio". Prof. Robert Brentano, University of California, Berkeley. Room 138 University College. 2 p.m. (SGS and Medieval Studies)

Chemistry

"Some Diterpene Epoxide Rearrangements". Prof. John ApSimon, Carleton University. 158 Lash Miller Chemical Laboratories. 2.30 p.m. (Chemistry and SGS)

Seminar
History

"Bentham's Career as Legal Reformer". Prof. J. H. Burns. Upper Library, Massey College. 2-4 p.m. (SGS and History)

Symposium
Canadian Studies

Discussion by panel consisting of Dr. Claude Bissell, Peter Newman, Prof. James Steele and Arnold Edinborough. 10 a.m. After lunch, panelists and participants will break into smaller "workshop" groups. Scarborough College (Canadian Studies Committee)

Meeting
Arts & Science

First 1971-72 meeting, General Committee of Faculty of Arts and Science Council. 3153 Medical Sciences Building. 4.10 p.m.

Conference
Editorial Problems

Seventh Conference on Editorial Problems: "Problems in Editing Texts of the Romantic Period". Hart House, 6.45 p.m. (Further information from J. D. Baird, Department of English, Victoria College)

Athletics

Hockey — special exhibition game — U of T Blues vs. Varsity Grads (all-star team composed of outstanding Varsity players from the past six years). Varsity Arena. 8 p.m.

6 SATURDAY

Lecture
Paleontology

"The Fifty Million Year Pedigree of the Horse". Dr. Loris S. Russell, Honorary Curator, ROM. Convocation Hall. 8.15 p.m. (Royal Canadian Institute)

Conference
Editorial Problems

Seventh Conference on Editorial Problems: "Problems in Editing Texts of the Romantic Period". St. Michael's College. 10 a.m. (Further information from J. D. Baird, Department of English, Victoria College)

7 SUNDAY

Music

Concert. Afternoon Series. Artists include Victor Martin and David Zafer, violins, and Thomas Monahan, string bass. Concert Hall, Edward Johnson Building. 3 p.m. \$3, students \$2.

Recital by Mari-Elizabeth Morgen, pianist. Great Hall, Hart House. 8.30 p.m. Free tickets available through Hall Porter.

8 MONDAY

Lecture
Hispanic

"Police Verso de José Martí: Textos y Contextos". Prof. Ivan A. Schulman, State University of New York, Stony Brook. Upper Library, Massey College. 4.15 p.m. (SGS and Italian and Hispanic Languages and Literatures)

Seminar
Physics

"Elementary Particle Physics". Prof. H. Pietschmann, University of Vienna. H214 Scarborough College. 4 p.m. (Physical Science Group)

Music

Organ recital by Dr. Charles Peaker, with Ralph Hodgins, bassoon. Convocation Hall. 5.05 p.m.

9 TUESDAY

Lecture
Computer

"On the Finite Element Approximation of Elliptic Problems with Corner Singularities". Prof. George Fix, Department of Engineering and Applied Physics, Harvard. Room 202 McLennan Physical Laboratories. 2.10 p.m. (SGS and Computer Science)

Seminar
Medicine

"Research into the Therapy of Malignant Brain Tumours". Dr. Charles Tator, Osler Hall, Academy of Medicine. 5 p.m. (Neuroscience)

10 WEDNESDAY

Lectures

Botany

"Control of Cellular Differentiation in Volvox". Prof. R. C. Starr, Department of Botany, Indiana University, Room 7 Botany Building. 5 p.m. (SGS and Botany)

Theatre

"The Death of Tragedy and the Re-birth of Comedy: Metaphysical Farce in the Modern Theatre". Prof. Karl S. Guthke, Harvard University. Upper Library, Massey College. 8.15 p.m. (SGS and German)

Seminars

Nutritional

"Malnutrition and Cellular Growth of the Brain". Dr. Myron Winnick, Professor of Pediatrics, The New York Hospital, Cornell Medical Center, New York. 124 Lillian Massey Building. 2 p.m. (Food Sciences)

Biochemistry

Fourth in series "Role of the Engineer in Society". Prof. P. M. Wright. Council Room G-202 Galbraith Building. 4.10 p.m. Students and staff from all faculties welcome. (Applied Science)

Engineering

Service

University of Toronto Alumni Association Service of Remembrance. Soldiers' Tower. 10.55 to 11.05 a.m.

Music

John Alldis Choir of London. Concert Hall, Edward Johnson Building. 8.30 p.m. Single ticket \$3, student ticket \$2.

with Insulin first to be honoured by new Chancellor



Dr. McGibbon

*Dr. Moloney

Dr. Sword

*Dr. Scott

Mr. Harris

*Dr. Hallas-Moller

11 THURSDAYLectures
Archaeology

Biochemistry

Decorative arts

Seminars
India

Environment

Meeting

12 FRIDAY

Lecture

Colloquium
ChemistrySeminar
Biochemistry

Music

13 SATURDAYLecture
Physics

Party

Festival

14 SUNDAY

Film

17 WEDNESDAYLecture
Medieval**18 THURSDAY**Lecture
MedievalTalk
Art

"The Gezer High Place". Anita Furshpan. Planetarium Lecture Room, ROM. 4.30 p.m. (Archaeological Institute of America, Toronto Society)

"NMR Studies of the Mechanism of Aconitase". Dr. A. S. Mildvan, Institute of Cancer Research, Philadelphia. 2172 Medical Sciences Building. 4 p.m. (Biochemistry and SGS)

"Irish Silver and Plaster Work". Desmond Guinness, expert on Georgian architecture and the decorative arts. Room 4, ROM. 8.30 p.m. Admission \$1.50; ROM members free.

"Communism in Indian Politics". Dr. Bhabani Sen Gupta, head of the Department of Disarmament and Security Studies, School of International Studies, Jawaharlal Nehru University, New Delhi. Room 402, 158 St. George St. 4 p.m. (South East Asian Studies)

"The Effects of Ozone and Sulphur Dioxide Independently and Together in Forestec System". Dr. J. Costonis. Council Room 211 Mill Building. 4 p.m. (Environmental Sciences and Engineering)

Special general meeting of the U of T Faculty Association. Medical Science auditorium. 8 p.m.

"Benjamin Franklin and the Electricians of Europe". Prof. J. L. Heilbron, Department of History, University of California, Berkeley. 102 McLennan Physical Laboratories. 1.10 p.m. Discussion will follow. (History and Philosophy of Science and Technology)

"Atomic and Molecular Scattering Above Thermal Energy". Dr. K. P. Lawley, University of Edinburgh. 158 Lash Miller Chemical Laboratories. 4 p.m.

"The Active Site of Pyruvate Kinase". Dr. A. S. Mildvan. 5227 Medical Sciences Building. 11 a.m. (Biochemistry and SGS)

Vladimir Orloff, cellist. Concert Hall, Edward Johnson Building. 8.30 p.m. Free. (Music)

"Rutherford in Canada". Dr. J. L. Heilbron, University of California, Berkeley. Convocation Hall. 8.15 p.m. (Royal Canadian Institute)

Children's Santa Claus Parade Party. Faculty Club. 10 a.m. Please make your reservations by Nov. 4.

Festival Québécois. Nov. 13 to 21. For story see page 3.

Program of international films begins today. These classic films are shown every Sunday until March 19, except during the Christmas holidays. Brochures available; telephone 928-2033. (Royal Ontario Museum)

"The Medieval Lyric and its Public". Prof. Stephen G. Nichols, Jr., Dartmouth College. 106 U.C. 4.15 p.m. (Medieval Studies and SGS)

"Rhetorical Metamorphosis in the Troubadour Lyric". Prof. Stephen G. Nichols, Jr. Upper Library, Massey College. 4.15 p.m. (Medieval Studies and SGS)

Joe Rosenthal, whose drawings and sculptures are on display, will talk in the art studio, 230 College St. 11.15 a.m. (Architecture)

THE PEOPLE IN THE PICTURE include the first six to have degrees conferred on them by the University's 24th Chancellor, Dr. Pauline McGibbon, who was installed in office earlier the same evening (October 26). Asterisks appear before the names of the honorary graduates. With them are Dr. A. L. Chute, Dean of Medicine; Dr. John Hamilton, Vice-President, Health Sciences; Dr. Charles H. Best, the central figure on numerous occasions during the University's celebration of Insulin's 50th anniversary; Dr. John H. Sword, the Acting President, and William B. Harris, Chairman of the Board of Governors.

The six who received honorary LL.D. degrees in Convocation Hall and a seventh who was honoured in absentia all are medical scientists whose research has been concerned with Insulin or related subjects. Dr. Walter Campbell, Toronto, was the first to administer Insulin to a human diabetic patient. Dr. Robert Davies Defries, Toronto, was closely associated with development of the Connaught Medical Research Laboratories. Dr. Maurice Edward Krahl, Stanford University, is best known for studies on the influence of Insulin on fatty tissues. Dr. Peter Joseph Moloney, Toronto, is internationally known for his discovery that Insulin functions as an antigen. Dr. David Alymer Scott, Toronto, developed new processes for the extraction and purification of Insulin. Dr. Knud Hallas-Moller, Holte, Denmark, developed types of Insulin which reduce for some patients the number of injections required. The Registrar accepted the degree as proxy for Dr. George Ballard Walden, Indianapolis, whose research involved new forms of Insulin and ways to mass-produce them.

United Appeal issues final call for all-out University support

Although the response by staff in a number of departments has been most encouraging, Dean James A. Ham and Vice-President Frank R. Stone, co-chairmen of the campaign on campus, urge all-out support by everyone in the final day of the United Appeal campaign, which officially concludes tomorrow.

The formal wind-up of the campaign

does not mean that gifts are not accepted after that day — far from it. All contributions are gladly received, no matter when offered. But tomorrow is the day when all returns on hand at that time are added up.

All canvassers are asked to complete the coverage of the offices assigned to them as promptly as possible and get their reports in before the deadline.

Faculty Association holds special meeting

A special general meeting of the U of T Faculty Association will be held on Thursday, Nov. 11 at 8 p.m. in the Medical Sciences auditorium. Agenda:

Report of University government committee on implementation of the new University Act;

Report of the proposed changes in the

organization of CAUT and OCUFA and of membership in these bodies;

A report on the Council's proposal for amendments to the Crispo Report on Supplementary Income and Related Activities;

Interim report of Salary and Benefits Committee.

School of Business report: an opportunity and a challenge

(Continued from page 2)

United States and Canada are so similar and so much of Canadian business is owned in the United States that continued dependence on the United States for education and research in this area is no cause for concern. That is, Canada does not need an outstanding business school any more than Ohio or Texas needs one. The larger issues on both sides of the question of U.S. dominance of Canada have been aired in the course of the on-going debate about the future of this country, and we can add little to the arguments advanced on either side of the general controversy. However, we would make two or three points in the context of our more limited frame of reference of business school education.

First, a business school with an international reputation tends to attract the top young men of a country who seek training for careers in business administration. A country without such a school finds that its young men with the greatest potential for leadership in business go abroad for their education with the consequence that some fraction do not return. Those that do return are not optimally educated insofar as the education received abroad is national in character and purpose.

Secondly, the doctoral program of a first-rate school of business produces faculty for other business schools in the country. In doing so, such a school generates significant research in national problems of economic policy and business administration and gives both leadership and direction to business education beyond its own halls. In the absence of one or more such schools, faculty in business schools throughout a country tend to be recruited from or trained abroad. This satellite relationship to foreign schools encourages second level research on problems that are defined abroad; the mechanical application of imported knowledge to the solution of domestic problems of business and administration; and the uncritical copying of foreign curricula in business education.

Of particular concern in this dependent, almost colonial relationship is the lack of focus on the ramifications of problems of special interest to the business and general communities in this country. In a country such as Canada, which is so heavily dependent on international trade, there is still a largely unfulfilled need for research into how best Canadian firms can respond to the increasingly competitive world markets in which they find themselves operating. Another example of this type of research deficiency which comes readily to mind is that of the multi-national corporation. Given the pervasiveness of this phenomenon in Canada, it is surprisingly how neglected it has been by the existing business schools, including our own. Still another example revolves around the question of the role of the corporation in modern-day society. This area affords an excellent illustration of the ready temptation to borrow from American thinking about the "Social responsibility" of "the good corporate citizen" despite obvious environmental differences in the two countries.

Despite the apparent need Canada does not now have a business school that ranks among those with a truly international reputation. The University of Western Ontario has done a commendable job of creating a Canadian version of the Harvard Business School case-approach to business education, although both schools are in the process of shifting away from what became undue dependence on the case method. Our School, as well as those at Queen's, the University of British Columbia, and York, have made some progress along the more rigorous, concentrated and research oriented lines of Chicago, M.I.T., Stanford, Wharton and Berkeley. However, none of the Canadian schools has acquired a stature that compares with the dozen or so leading schools in the United States. Moreover, only a few scholars in Canadian business schools are making a significant contribution to the international literature on business administration. A somewhat larger number are making peripheral contributions to this literature. What is even more disturbing, however, is that applied and fundamental research on Canadian problems of business policy and corporate strategy is limited in scale and is rarely first rate in quality.

The Case for an Outstanding School of Business at University of Toronto

The basic question to be dealt with is whether the University of Toronto should have a business school. Since we, the Faculty of the School of Business, obviously have a vested interest in this question, our views are doubtless coloured. Nonetheless, there are at least two critical and interrelated considerations which we think should be highlighted. In the first place, it is noteworthy that, with at most two exceptions,

every one of the great universities in North America has a business school with a comparable stature. Secondly, there are few universities anywhere that are better suited than the University of Toronto to support a flourishing business school.

However, if the University of Toronto is to continue to have a school of business it must become an outstanding one. This is because the University of Toronto is or aspires to be one of the world's great universities, and to realize that standard, it must be required of most of its parts, if not all. Hence the standard for a school of business at this University is that it be outstanding, not only by national, but also by international standards.

The fact that most of the great universities in North America have first-rate schools of business is a reflection of the reciprocal contributions which can flow between a first-rate business school and the university of which it is part. Through faculty cross-appointments and student cross-enrolments, there can be an effective blending of the strengths which such a school and related divisions of the university have to offer to each other. In this context it should be noted that the business organization is among our society's most important institutions, and the differences between business and other social organizations are diminishing with the passage of time. As a consequence considerable pure and applied research in economics, mathematics, psychology, sociology and other disciplines has been motivated by the objective of explaining and improving the administration and operation of business organizations. Moreover, to an increasing degree over the past quarter century, such research has been carried on in business schools.

In terms of the reciprocal relations between a school of business and other components of the university of which it is part, it is worth noting that some other programs within a great university, must of necessity, draw heavily on the resources of its business school. This is particularly true of public administration programs which often prove deficient in some critical areas in the absence of an effective link with a strong school of business. Certainly if the University of Toronto eventually hopes to develop a well-rounded course in public administration, it will be hard-pressed to do so without the vital complementary resources available through a ranking business school.

The University of Toronto has considerable comparative advantages over all other Canadian universities in building a first-rate business school. All the pre-conditions for drawing and keeping a superior faculty and student body exist at this University. These pre-conditions include an outstanding university, depth and strength of scholarship in related divisions, an attractive place to live, and proximity to the country's business leadership. Little reflection is required to appreciate the fact that the University of Toronto is second to none in Canada in terms of these advantages.

That the University should pursue these advantages is suggested by considerations other than those largely or purely academic. Besides the academic benefits which can redound to the University as a whole as a result of having a flourishing business school within its midst is the good-will which can be generated in the business community. Such good-will is critical when private outside financial support is so vital to the continuing welfare of the University. Together with the School's history of producing more revenue than cost for the University, this is not an insignificant consideration. For a variety of cogent reasons, therefore, a first class business school is a wise investment for a great university.

Characteristics and Objectives of an Outstanding School of Business

An outstanding business school is distinguished by its performance in several areas of academic relevance. The most important criteria for such a school are the reputation of the faculty, the reputation of the graduates, the reputation of the school itself, the reputation of the university of which it is part, and the current objectives of the school. The performance required of an outstanding school in each of these areas is briefly discussed below.

(1) Reputation of the Faculty

Collectively the faculty of a leading business school should reflect its dual commitments both within and beyond the university. The faculty as a whole must perform well academically in its teaching and research as well as achieve a reputation in business for relevance. Consequently in the recruitment and retention of faculty, two priorities have to be satisfied. The first priority is given to those with a proven record or potential for teaching and research on a conceptual level. Secondly, emphasis has to be placed on an individual's ability

to relate in his teaching and research to the practical world of business affairs. Few faculty members can hope to excel in all these capacities and obviously some degree of specialization must be expected. Nonetheless, a first rate business school must strive for a faculty which on balance is equally at home in academic circles and the world of business, whether in the course of their contributions to teaching and executive development or in the course of their research and related work.

(2) Reputation of the Graduates

An outstanding business school is known for its efforts in the recruitment and selection of high quality students. Similarly, the school has a reputation for demanding performance standards for students while in the various programs. The results are reflected in the high quality of its graduates: its MBA's are sought for their potential as professional managers because of their forward-looking appreciation of fundamental and applied business problems; its Ph.D.'s are prized as teachers, researchers, or consultants because of their grasp of appropriate analytical tools and relevant applications of emerging theoretical concepts.

(3) Reputation of the School as an Institution

To complement its reputation, a strong business school has an administrative structure, physical plant, library, computer facilities and support staff to reinforce both the attributes and needs of its faculty and student body. Because of the numerous business community interactions expected of an outstanding school of business, the administrative structure of such a school has to be geared to a double burden of internal and external commitments. Although a ranking business school can usually depend in part upon the central library resources in the university of which it is part, it normally has to have a library of its own, combining a substantial number of standard business books and journals as well as a large collection of special materials essential to graduate research in business and management. Reflecting the growing application of computer technology in industry and commerce, a first class business school has to have ample access to an adequate computer, as well as sufficient personnel and software to make efficient use of it. To complement all of these resources, a leading business school has to have enough secretarial and clerical help to avoid the false economies inherent in faculty having to undertake such work on their own.

(4) Reputation of the University

In North America, Princeton and to some extent Yale are the only outstanding universities which do not have graduate programs in business education. On the other side, there appear to be no major schools of business which are not associated with universities of high reputation. It would thus appear that a school of business cannot hope to become outstanding unless it is part of a university of similar stature. In addition to a university-wide tradition and commitment to academic excellence, such a university must have strength in the discipline related to business education (economics, social sciences, quantitative methods), as well as significant library resources and computer facilities. Reflecting the multiplicity of its endeavours, such a university also has as great a commitment to its professional schools as to its arts and science programs. In addition, it is a great advantage to a business school if the university is located in proximity to major industrial and commercial centres.

(5) Objectives of the School

The dominant characteristic of an outstanding business school is that it is basically a graduate professional school committed to the education of students for careers in administration and management. The mainstay of such a school is its M.B.A. program which it strives to make prominent in educating students to be in the forefront of the general practice of management.

Second, with a faculty of considerable research potential, an outstanding school strives to develop an equally sound Ph.D. degree so that the school can contribute to the development of business education in a wider sphere as well as maintaining a strong research environment within the school.

Third, as part of a great university with many complementary resources from which to draw on and contribute to, such a school makes a concerted effort to interact and integrate its activities with those of related divisions.

Fourth, an outstanding professional school is strongly aware of the reciprocal economic and pedagogic advantages which can flow from interchange with the business community. To this end, such a school strives

to develop significant executive programs for the business community, an activity which can be greatly to the advantage of the university in general.

Fifth, with a faculty that is committed to relevant research as well as teaching, such a school has a commitment to the study and examination of major national issues concerning business and the economy. The focal point for this objective in a Canadian school of business should be the special but neglected problems confronting Canadian enterprise.

We believe the School of Business at the University of Toronto has the potential to satisfy the criteria for an outstanding school of business and we believe the School should be allocated the additional resources required to achieve these five objectives. An appreciation of the School's needs in various areas flows from the following assessment of its current status.

The Current Status of the School of Business

It has been acknowledged implicitly that the School of Business at the University of Toronto is not now an outstanding school by international standards. Why is this so? Is there a foundation on which such a school can be built? If this is so, what is required to realize that goal? Our answers to these questions are couched largely in terms of the School's faculty because we believe that whether a school of business is to excel or not depends ultimately on the quality and performance of its faculty. To ensure a faculty of high quality and performance however, there are as we have already stressed, related attributes required of a great school. In this section these attributes are dealt with more by implication than anything else. They are dealt with more explicitly in the next section, which contains our specific recommendations.

(1) Reputation of the Faculty

As recently as the 1964-65 academic year, it could be argued with considerable merit that the University of Toronto had a business school in name only. In that year, there were 14 men including the director on the faculty. While some of these men were doing excellent work, the faculty as a whole was not part of the mainstream in the development of education and research in business administration. Of the 14 only 5 had Ph.D. degrees, of which only one was from an outstanding university other than the University of Toronto. None had served previously on the faculty of a first-rate business school. In terms of academic publications to 1964-65, the cumulative record of the faculty was 20 publications in academic journals, 4 papers in academic proceeding, 10 monographs, 5 edited books and one original book. Of course no other Canadian business school had produced much more as a graduate faculty, but the conclusion cannot be avoided that the School of Business at Toronto was not up to the standard of the University.

From 1965 onward, despite intensive competition from other business schools expanding at an even more rapid rate, the School at Toronto was able to hire some impressive new faculty and gradually build up its strength. The attractiveness of the University of Toronto appeared to be more responsible for the acquisition of these faculty than the School itself, but in the process the nature of the School began to change. By 1970-71, the faculty had grown to 22 full-time members, of whom 18 had Ph.D.'s from a broad cross-section of outstanding universities. Moreover, many of the new faculty members had previously served on the faculties of excellent business schools elsewhere. By 1971 the cumulative publication record of the faculty was 71 articles in academic journals, 25 papers in academic proceedings, 37 monographs, 9 edited books and 12 original books.

The scholarly output of the faculty reflects the radical change in its character and the growth in its size. At this point in time a nucleus faculty with the potential to develop into a first-rate school of business is present in the School and this potential can be realized with the support of the university.

(2) Reputation of the Students

For the most part the graduates of this business school are well received by industry and many have gone on to positions of prominence and responsibility. However the students suffer somewhat because the school itself has not had a strong reputation. While other schools were undergoing very rapid expansion in size and generating a great deal of publicity, this school had much slower growth and little publicity.

(3) Reputation of the School Itself

As already indicated a group of scholars has recently been assembled in the Uni-

(Continued overleaf)

Potentially we have 'an outstanding school of business'

(Continued from page 6)

versity of Toronto School of Business that compares very favourably with every Canadian business school and is not far below the top United States business schools in average quality. However, comparable progress has not been made in converting this collection of scholars into a business school of the same rank for a number of reasons. Although the faculty has grown rapidly in both number and stature over the last few years, the student body has grown at an even more rapid rate, thereby raising the student faculty ratio from about 8:1 to about 16:1. Until last year the School's physical plant could charitably be described as abominable. The Administration has demonstrated sustained doubt about whether a business school is a proper activity for a great university. This has had two undesirable consequences for the School's development. One, the University has been very sparing in providing the resources essential for the School's development, and it has not encouraged the School to go outside the University for additional resources. Second, the formal position of the School within the University is that of an academic department, and not enough thought has been given to modifications in its administrative structure and or in the regulations governing it that are necessary to fulfil its responsibilities as a professional school. In this setting all of the faculty's resources were absorbed in teaching its courses on a day to day basis and in carrying out its research on an individual basis.

Despite the inadequate and unfriendly environment in which the faculty has functioned, it too must bear some responsibility for the fact that the School has not made more rapid progress. Until recently, as we have already noted, the faculty's research output was well below what it should have been. Collectively, the faculty is also to be faulted for neglecting both the School's internal and its external relations. Relatively few faculty members have shown any real concern about, let alone involved themselves in, the general affairs of the University. At the same time, an insufficient number of faculty have become well known for their research and its possible applications within the business community. Some faculty members have also demonstrated a lack of commitment to some of the School's own priorities, such as its Executive Development Program.

In spite of the continued presence of some of the circumstances that gave rise to these understandable faculty shortcomings, we are confident they are already being overcome and that they can be virtually eradicated, if the University will support the School in the manner necessary to realize our objective of making this school a high ranking one by international standards.

(4) Reputation of the University

There is no question of the stature of the University of Toronto or its strength in academic divisions related to business education. The question that remains is whether the University is prepared to commit itself to the development of a first-class graduate school of business.

(5) Objectives of the School

The School of Business has always had the objective of developing a high quality M.B.A. program for students interested in pursuing a business career but its progress has been uneven in the past. Some feeling of commitment to the remaining objectives of a high quality school were implicit in this school's operations in the past but only recently has there been a concerted attempt to explicitly formulate and define the objectives of the School. Now there is a clear feeling that the School should actively pursue the objectives of a first rank school of business, namely:

- development of a pre-eminent M.B.A. program,
- development of an equally sound Ph.D. program,
- substantial interaction with related departments,
- development of significant interaction with the business community, and
- research on significant issues in Canadian business.

In the next section of this report we suggest what will be required of the University to enable us to develop an outstanding business school. The collective effect of these recommendations would permit the School to: raise substantial additional funds outside the University, recruit necessary additions to the faculty, recruit top students from across Canada, develop an improved curriculum, and have an administrative structure necessary to make it the leading business school in Canada by wide margin. In the process, there is a very high likelihood that the faculty will realize a mission and a character that will make the School outstanding by international standards.

Recommendations

The following recommendations spell out the precise nature of the strategy we believe the University and the School must jointly pursue if the School is to achieve the stature the University would then have every right to expect of it.

(1) The School's Place in the University

The School should remain exclusively a graduate school of business but with far more autonomy than it now enjoys. Indeed, we believe it should become a faculty with a status similar to that of the Faculty of Law. At the same time, the School should more effectively coordinate and integrate its contributions with those of other undergraduate as well as graduate divisions of the University concerned with teaching and research in various aspects of administration and management. The School should open, insofar as resources permit, the courses in the first year of the M.B.A. program to senior undergraduate students who have taken the appropriate prerequisite courses and who have achieved high academic standing. This will facilitate, in particular, the direct entry of graduates in Commerce and Finance and in Industrial Engineering into the second year of the M.B.A. program. Closer relations with the graduate programs in such department as Political Economy, Educational Administration and Planning (in the Ontario Institute for Studies in Education), Health Administration (in the School of Hygiene), and Urban and Regional Planning should be developed. These relations can be developed by appropriate cross-appointments of faculty and by enrolment of M.B.A. and Ph.D. students in the School of Business in courses in these departments and enrolment of graduate students in other departments of the University in School of Business courses. All of these steps would enhance the School's ability to form the nucleus of a more broadly based Faculty of Management or Faculty of Administrative Studies should this be deemed desirable in the future.

(2) Full-time Programs

In terms of full-time programs, the School should devote all of its energies to its Diploma, M.B.A. and Ph.D. degrees. The first two of these programs should remain professional graduate courses designed primarily for those intending to pursue a career in business. Over the next five years the School's target enrolment in the Diploma and M.B.A. programs should be at their combined 1970-71 level with the major effort going into improving the quality of the curriculum and the student body. The Ph.D. should continue to be developed as an advanced research degree for those interested in teaching, research or consulting positions. Enrolment in the Ph.D. program should increase from the present level of 21 to about 40 over the next five years to make the program viable in size. In all of its programs the School should gradually increase its course offerings in the summer.

(3) Student Recruitment

In order to raise the quality of the full-time student body, the School must not only improve its general image but also compete much more effectively with the aggressive recruitment programs of other major schools of business. The School's reputation should radically improve if our overall set of recommendations is implemented. Even then, however, it will be essential to recruit students more directly through campus visits and related promotional activities. Fortunately, this is one area where some of the necessary advances are already being achieved, largely as a result of alumni financial and moral support.

(4) Part-time and Executive Development Programs

The School should pursue an active and vigorous series of part-time and executive development programs. As a service to those in the community wishing to pursue a Diploma or M.B.A. but unable to do so on a full-time basis, the School should continue to offer its part-time evening programs, provided the courses required can be mounted for the most part by our full-time faculty. Experience suggests this is essential in order to maintain the same levels of dedication, interest and standards which prevail in the full-time programs.

As part of an expanded Executive Development Program, the School should also offer a special Executive M.B.A. program for promising middle management executives whose companies wish to sponsor them.

The School's Executive Development Program should also feature a variety of short-term conferences and seminars in general or specialized areas of mutual interest to the School and the business community.

(5) The Head of the School

Consistent with our view that the School should become a Faculty, the head of the

School should be designated a Dean rather than a Director. This would provide him with a title and rank equivalent to those of his counterparts in virtually all other leading business schools in North America. Together with our other proposals, this change would obviously enhance the University's ability to recruit and retain the kind of leadership the School must have if it is to achieve the objectives set forth above.

(6) Administrative Structure

The School must be equipped with a more effective administrative structure. The least which should be done at the top level in the School in the years immediately ahead is portrayed in the accompanying chart. All of the positions shown on the chart would have to be filled on a full-time basis except for those of the Dean and the two Associate Deans, each of whom would be expected to teach a course every term. [The principal positions shown on the chart were those of a Dean and, supporting him, an Associate Dean (Academic) and Associate Dean (Executive Development, Placement and Recruitment).]

(7) Additional Faculty Requirements

To become the kind of school we have outlined, the School's faculty will have to be expanded over the next few years. Such an increase is not only required to reduce the School's relatively high student-faculty ratio, and to live up to the assurances given when its Ph.D. program was launched, but also to ensure a viable number of faculty in each of the School's major core and functional areas. In our estimation there is a minimal need for a net addition of 9 faculty members over the next five years. If the School is authorized to proceed with the special Executive M.B.A. Program we have called for, an additional five faculty members would be required.

(8) Physical Accommodation

Although the School's physical accommodation has improved markedly over the past year or so, particularly in terms of its quality, the University will have to be prepared to expand the space allocated to the School in order to facilitate the other recommendations advanced in this Report.

(9) Library Resources

In keeping with the School's emphasis on various disciplines, teaching and research, and on applied as well as theoretical work, the School's library resources must be strengthened. Although the School can draw on the University's central library collection, the School's working collection of books and periodicals for teaching purposes should continue to grow in order to facilitate student use of these materials. The School's library should also develop a collection of the specialized research materials and data sources, other than books and periodicals, necessary for graduate study in management. To develop this collection, the School will need, in addition to the present library staff, a research librarian and another assistant librarian.

(10) Computer Facilities

In response to the computer's revolutionary impact on the practice of management, it is essential that graduate students in business be increasingly exposed to the uses of the computer in contemporary administration. To this end, our computer hardware and software resources must be increased sharply over the next few years and at least one qualified person must be hired to oversee the use and updating of the computer facilities.

(11) Support Staff

In addition to an improved administrative and organizational structure, the School has a desperate need for more non-academic support staff. In terms of secretarial services, the School has a special problem because it expects its faculty to be involved in the business community, if only to keep abreast of applied developments in their fields. This expectation imposes extra secretarial burdens for telephone calls, correspondence and participation in professional as well as academic associations. We should have a clerk-typist for every 3 or 4 faculty members (on a full-time equivalent basis). Yet, we now have only one for every 6 or 7 faculty members.

(12) External Financing

The School should endeavour to raise as much financial support as it can from outside the University both for general purposes and specific projects. We are convinced such support will be forthcoming if the School is revitalized in the manner recommended herein. In addition to general donations and project grants, the School should be permitted the use of any surplus funds generated by its non-degree part-time executive development programs, to promote research and scholarship, especially through student assistantships and fellowships.

(13) Business Advisory Council

To ensure the reciprocal advantages which can be expected to accrue from more communication and liaison between the School and the business community, a high level Business Advisory Council should be established with appropriate sub-committees to deal with specialized matters of mutual concern. In particular, we would like to see special sub-committees composed of top flight practitioners in each of the School's functional areas, such as personnel, finance and marketing, to inter-act regularly with those responsible for our courses in these areas.

Financial Considerations

The proposals described above will increase substantially the budget of the School of Business. Additional revenue will, however, be generated under formula financing from the increase in enrolment in the Ph.D. program. In addition, the School plans to launch a fund-raising campaign aimed at securing by 1975-76 an annual income of \$300,000 in research and general funds. About \$100,000 of this will be used for budget items, and the balance will be used for support of Ph.D. students, supplements for faculty who are working on research projects and other research costs. The Executive M.B.A. and other Executive Programs are expected to contribute to the general funds.

According to our calculations, in 1970-71 the University received under formula financing (including tuition) at least \$1,300,000 for students enrolled in the School of Business. The budget for the regular academic program (including executive development programs) was about \$530,000. Thus the University had a surplus of about \$770,000 which was available for overhead, cost of space occupied by the School, and other purposes. If our projections of revenue and expenditure to 1975-76 are reasonably accurate, the amount of this surplus will decrease temporarily but then recover in the latter years. In the earlier years, it will decline as staff increases will be necessary before Ph.D. enrolment can be fully expanded. Some subsidization of the costs of the additional administrative staff of the Executive Programs may also be necessary in the earlier years.

Conclusion

In this brief we have set forth the minimal commitment the University must make to the School of Business if it is to become Canada's leading business school and be put on the path to become an outstanding business school by international standards. We are confident that whatever further resources are required to meet this objective will be forthcoming from the business community once it becomes aware of the University's commitment to such a goal and of the School's capacity and desire to realize it.

Hopefully the University will decide to support our proposals solely because it shares our view that nothing less than a commitment to excellence is acceptable at the University of Toronto. On the other hand, given the lengthy period of financial stringency which seems to lie ahead, the University may decide to focus largely on the financial ramifications of our proposals. Even on this relatively narrow, but understandable, basis our proposals stand up well under scrutiny. Although the University would realize a material reduction in the surplus generated by the School in the second year of the five year projection, by the end of the period the surplus is only slightly less than the current level.

What worries us the most is the danger that the University will consider the School only from a short-run revenue and cost point of view and continue to assume that it can generate a healthy surplus even if our proposals are ignored. The slight contraction in our current first year enrolment should serve as warning enough that this attitude will no longer suffice. This School is up against tough competition both from North and South of the border. So far we have more than held our own in faculty recruitment where image is not as important as substance. Continued success in faculty recruitment is critical to the reversal of our image among prospective students and the business communities. Both battles will be lost if the University's traditional attitude towards the School is not reversed.

In other words, the development of other Canadian business schools offers students and faculty alternatives that did not exist during the last decade. Consequently, we are forced to either move forward or decline to a comparative rank among Canadian business schools that the University would surely find unacceptable. We obviously favour a positive response to this brief, but we respectfully suggest that a decision to terminate business education would be less painful and damaging to the University than allowing the serious decline in quality that would be the consequence of indecision.

STAFF NOTES

THE UNIVERSITY

Dr. Claude Bissell, University Professor, who is on sabbatical leave until next year, will receive the honorary degree of Doctor of Letters at the fall convocation of the University of Western Ontario on Oct. 29. The same degree will also be conferred at that time on C.P. Snow, the scientist who became one of Britain's most distinguished novelists.

ARTS AND SCIENCE

Prof. J.E. Dove attended the Eighth International Shock Tube Symposium at Imperial College, London, July 4-7, at which time he presented a paper entitled "The Use of the Shock Tube to Study Mass Spectra of High Temperature Gases". He also attended the Second International Symposium on Gas Kinetics at University College, Swansea, Wales, July 7-9, and the Conference on Molecular Energy Transfer at Cambridge, England, July 18-23, at which he spoke on "Numerical Calculation of Vibrational Relaxation and Dissociation for a Quantum Anharmonic Oscillator".

Prof. J.B. Jones presented a talk, "Studies Related to the Steroid Δ^5 -3-Ketoisomerase of *Pseudomonas testosteroni*" at the School of Pharmacy, University of Wisconsin in July.

Prof. H.S.M. Coxeter was awarded a D.Sc. at Acadia University. He gave the following talks: "Polyhedral Numbers" and "The Hyperbolic Angle of Parallelism" at the Mathematische Forschungsinstitut Oberwolfach; "Frieze Patterns" at the University of Hannover; "Regular Complex Polygons and Cayley Diagrams" at the Universities of Kiel, Hamburg, Bochum, and at an International Conference on Combinatorial Mathematics at Colorado State University.

Prof. A.W. Brewer attended the XVth General Assembly of the International Union of Geodesy and Geophysics in Moscow and was convener of the symposium on Energetics and Dynamics of the Mesosphere and Lower Thermosphere held Aug. 3-5. On Aug. 3 he acted as chairman of the session on Composition and Photochemistry. Prof. Brewer was made chairman of the Resolutions Committee of the International Association of Meteorology and Atmospheric Physics, and he was reelected president of the International Ozone Commission.

A highly successful international summer school on "The Dynamic Structure of Nuclear States" was organized by members of the Physics Department at Mont Tremblant Lodge in the Canadian Laurentians, Aug. 2-13. The Summer School was sponsored jointly by the Theoretical Physics and Nuclear Physics Divisions of C.A.P. and financially supported by N.A.T.O., N.R.C., A.E.C.L. and the Provinces of Alberta and Ontario. It was officially opened by C.A.P. President and Hydro Quebec Research Director, Dr. Gilles Cloutier, at a reception tendered by Hydro Quebec.

Eight of the world's leading nuclear physicists came to Mont Tremblant to join their Canadian counterparts in providing several series of lectures on recent developments in dynamic nuclear structure. Among the Canadian contributions, were the following lecture series by Toronto physicists:

Dr. T. Drake: "Elastic and Inelastic Electron Scattering Measurements; Extended Nilsson Model and Projected Hartree-Fock";

Dr. A.E. Litherland: "Experimental Evidence for Alpha-Particle Clusters in the Region ^{16}O and ^{20}Ne ";

Dr. T. Goldemberg: "Prompt and Delayed Photofission."

Dr. D.J. Rowe: "Equations-of-Motion Approach to Nuclear Spectroscopy."

The Summer School finished with a banquet and an after-dinner speech on "The Organization of Science in Canada" and a "Conference Summary" by Dr. L.E.H. Trainor.

The organizing committee included Dr. T.W. Donnelly, Dr. A.E. Litherland, Dr. D.J. Rowe (Director), Mrs. Dianne Schwartz, Dr. L.E.H. Trainor, Dr. S.S.M. Wong.

UNIVERSITY COLLEGE

Prof. D.F.S. Thomson attended the First International Congress of Neo-Latin Studies at Louvain, Belgium, Aug. 23-28, and delivered a paper on "Erasmus as a Literary Critic".

Prof. K.D. White, Reader in Classics at the University of Reading, is a Visiting Professor in the Department of Classics, from Sept. 1971 to April 1972. Prof. White, who has held University posts in Scotland, England, South Africa and Nigeria, is best known for his work on ancient economies and technology, and in particular Roman agriculture. His most recently published book is *Roman Farming* (Cornell U.P. 1971).

Prof. N.E. Collinge, L.E. Woodbury, and G.V. Sumner attended the Triennial Joint Meeting of the Greek and Roman Societies at the University of Cambridge, July 26-31. Prof. Collinge delivered a paper on "The Greek and Latin Imperfect".

Prof. A.E. Samuel attended the 13th International Congress of Papyrology in Marburg, Germany, Aug. 2-6 and delivered a paper on "Economic Goals and Tacit Assumptions".

Prof. T.D. Barnes attended the Sixth International Patristic Conference at Oxford, Sept. 6-11, delivered a paper on "Tertullian the Antiquarian," and chaired three sessions at the conference.

New courses in Modern Greek are being taught in the department by G. Thaniel, who is a graduate of the University of Athens and McMaster University.

Prof. Phyllis Grosskurth was appointed in June by the Minister of University Affairs a member of the Committee on University Affairs.

VICTORIA COLLEGE

Prof. R. LeHuenen gave a paper on "Regard et ontologie selon N. Sarraute" au XVe congrès de l'Association des Sociétés de Philosophie de Langue Française, Montreal, Sept. 1.

Prof. E.G. Clarke attended the summer meeting of the British Society for Old Testament Study in London in July. He also read a paper "The Fragmentary Targum Witnesses to the Noah Story" at the VIIth International Congress for the Study of the Old Testament in Uppsala, Sweden, Aug. 7-14.

Prof. Albert Pietersma spent two months in Dublin pursuing research on the Greek Biblical papyri at the Chester Beatty Library. He also read a paper "Papyri 961 and 962" of the Greek Genesis" at the meetings of the International Organization for Septuagint Studies in Uppsala, as well as attending the meetings there of the VIIth International Congress for the Study of the Old Testament in August.

EMMANUEL COLLEGE

Prof. W. Morrison Kelly is on sabbatic leave in Cambridge, England, until January 1972. Prof. Kelly's study is in the area of liturgics and specifically the life and teaching of Dom Lambert Beauduin. He will attend the biennial meeting of the *Societas Liturgica* in Strasbourg, France, in September.

Prof. David Demson is on sabbatic leave for the 1971-72 academic session. Prof. Demson will be making studies of the Protestant Theological Tradition in America. During the summer he visited the Centre for Swiss Reformation History in Zurich and the Centre for Genevan Reformation Studies in Geneva on behalf of the Centre for Reformation and Renaissance Studies. He attended a World Council of Churches International Consultation on Contextual Theology at the Chateau de Bossey. He read a comment on "The Theology of Corporate Experience" at a consultation of theologians and religionists held in Schloss Kleiningersheim, Kleiningersheim, Germany.

SCARBOROUGH COLLEGE

Prof. Pedro R. Leon has received a grant of \$2,000 from the Humanities Research Council Canada, using funds provided by the Canada Council for publication of his book *Algunas Observaciones sobre Pedro de Cieza de Leon y la Cronica del Peru*.

NEW COLLEGE

Principal Donal Ivey participated in a panel discussion "Are Good Teachers Born or Made?" at the meeting of the Ontario Confederation of University Faculty Associations at the University of Western Ontario, May 8; gave the keynote address "Communication: I talk--you listen" to Dialogue '71 at Lakehead University, May 10; addressed (with Prof. J.N.P. Hume) the plenary session of the annual meeting of the Canadian Association of Physicists on "Two for Physics" at Carleton University, June 22.

ERINDALE COLLEGE

Prof. S.M. Eddie attended the annual meeting of the Economic History Association in Atlantic City, Sept. 8-10, where he delivered a paper on "The Terms of Trade as a Tax on Agriculture: Hungary's Trade with Austria, 1883-1913".

Visiting Prof. R.W. MacQueen (of the Institute of Sedimentary and Petroleum Geology, Geological Survey of Canada, Calgary) attended the 8th International Sedimentological Congress in Heidelberg, Germany, Aug. 30-Sep. 4, and presented a paper which he co-authored on the geochemistry of modern carbonate sediments from Shark Bay, West Australia. Visits were also made to oceanographic institutes at Kiel and Wilhelmshaven, north Germany, and the Bedford Institute (Dartmouth) and Dalhousie University (Halifax).

Prof. J.R. Percy attended the 15th Colloquium of the International Astronomical Union in Bamberg, Germany, from Aug. 31-Sept. 3. He presented a paper entitled "On Stothers' and Simon's Binary-Star Hypothesis for β Canis Majoris Star Pulsation" by J.R. Percy and K. Madore. He also visited the Institute for Theoretical Astronomy and the University Observatory, Cambridge, England.

Prof. A.J. Poë spent the summer as an Academic Visitor at the Chemistry Department of Imperial College, London, and presented an invited paper entitled "Kinetic Studies of Metal-Metal Bonded Carbonyls" at the Bressanone Conference on "Stability and Reactivity of Co-

ordination Compounds" at Bressanone, Italy.

Prof. A. Rosenthal attended and delivered a paper at the International Congress for Logic, Methodology and Philosophy of Science held at the University of Bucharest from Aug. 29 to Sept. 4. The title of his paper was "Reduction and Communication Between Disciplines". He also attended and participated in the International Conference for the History of Science held at the University of Moscow, Aug. 18-24.

MEDICINE

Prof. Margot Mackay made a presentation on behalf of Dr. B.M. Marshall and Dr. T.P. Morley, an exhibit and tape slide entitled "Air Embolism in Neurosurgical Operations" at the Congress of Neurological Surgeons in Miami, Florida from Oct. 1-15.

Dr. Gregory Brown presented a paper to the 2nd International Symposium on Growth Hormone which was held in Milan, Italy, as co-author with Drs. D.S. Schalch and S. Reichlin, entitled "Independent Regulation of Cortisol and Growth Hormone Secretion". The paper was published in the Proceedings of this meeting, *Excerpta Medica International Congress Series No. 236*.

Dr. Oleh Hornykiewicz has been elected to two famous Academies: The "Leopoldina" – a German Academy of Natural Scientists, and the Austrian Academy of Sciences in Vienna.

APPLIED SCIENCE AND ENGINEERING

Prof. R.E. Jervis attended national conference of the American Nuclear Society, Boston, June 14-16 and presented two invited papers: "Activation Analysis Applications to Public Health Problems" and "Some Logistic Problems in Presenting Activation Analysis Evidence in Courts". He also attended an American Nuclear Society topical symposium on Nuclear Methods in Environmental Research at the University of Missouri, Aug. 23-24 and presented an address "A Glimpse of Science in Mainland China" and an invited paper "Trace Mercury Determinations in a Variety of Foods".

Prof. M.R. Piggott, in June, visited the Research Departments of the Swedish National Defence, Stockholm, Danish Atomic Energy Commission, Riso, British Central Electricity Generating Board, Berkeley, Royal Aircraft Establishment, Farnborough, National Physical Laboratory, London, and the Universities of Brussels (U. Libre), Nancy (Institute National Polytechnique), Liverpool, Manchester, Nottingham, Surrey, and Birmingham to discuss work on composite materials, and to give seminars on the toughness of fibre reinforced materials.

Prof. D. Biringer was nominated as Canadian delegate to the International Electric Commission meeting at Warsaw, Sept. 28. He became chairman of the Canadian National Committee of TC27 of the International Electric Commission and Canadian delegate to Working Group 7 of the same organization.

A paper entitled "Study of Compressed Log-Periodic Dipole Antennas", by C.C. Bantin and Prof. K.G. Balmain has received the award "Best Paper of the Year" for 1970, in the IEEE Transactions on Antennas and Propagation. The award was presented at the Annual Symposium in Los Angeles on Sept. 22.

Prof. E.E. Newhall presented an invited paper on Computer Communications at the International Federation of Information Processing Societies in Ljubljana, Yugoslavia, in August.

Prof. H.W. Smith attended the IFAC/IFIP Symposium on Digital Process Control, Helsinki, June 2-5, where he was chairman of a technical session on control of mineral processes. He also lectured at the Technical University of Helsinki on "The Design of Industrial Regulators; Feedback and Feedforward Control". During a visit to the Technical University of Norway, Trondheim, June 10-11, Prof. Smith delivered lectures on the above topic and on "Problems in Control of Mineral Concentration Processes", and held a research seminar on the latter subject. He also visited industrial plants in Finland, Sweden, and Norway.

Prof. P. Boulton and David Jeanes presented "PLUTO - A High-Speed Ultra Diagnostic PL/I Compiler System" at the Canadian Computer Conference, Sept. 16.

Prof. K.C. Smith and P. Boulton presented "STAR-RING: A Computer Intercommunication and I/O System" - a paper by J. Potvin, P. Chevrier, K.C. Smith and P. Boulton at IFIP '71, Ljubljana, Yugoslavia, Aug. 23-28.

Prof. K.C. Smith attended the 1971 IEEE International Symposium on Electrical Network Theory, City University, London, England, Sept. 6-10, and as a member of IEEE Ad. Com. on Circuit Theory was involved in discussions concerning the possibility of holding the International Symposium in Canada in 1973.

Prof. V. Klemes delivered a lecture on "Stochastic Hydrology" at the Inland Waters Branch, Department of the Environment, Ottawa, on July 5, and on Aug. 31 presented a paper on "Some problems in Pure and Applied Stochastic Hydrology" to the symposium on Statistical Hydrology held in Tucson, Arizona.

Prof. H.J. Leutheusser presented a paper (co-author, Dr. F. Resch) on "Turbulence Measurements in the Hydraulic Jump" at the 19th Annual Hydraulics Division Specialty Conference of the American Society of Civil Engineers at the University of Iowa, Aug. 18-20, and a paper on "Static Wind Loading of Grouped Buildings"

of the 3rd International Conference on Wind Effects on Buildings and Structures in Tokyo, Sept. 6-11.

Prof. Karl T. Aust and Dr. J.H. Westbrook, General Electric Company jointly received Hofmann Memorial Competition awards at the 4th International Conference on Lead held in Hamburg, Germany, on Sept. 22. The title of their award-winning paper is "Solute Hardening at Interfaces in High Purity Lead, II Free Surfaces", which was published in *Acta Metallurgica* 19 (1971) 521.

COLLEGE OF EDUCATION

Prof. A.F. Skinner attended the annual conference of the Comparative and International Education Society of Canada held in St. John's Newfoundland, in June. He presented reports both as editor of the Society's Proceedings and as Convenor of the Nominations Committee. Prof. Skinner also conducted a 6 weeks' summer course in Comparative Education for two groups of "Mature Students" in McArthur Hall, Queen's University.

During the months of June, July and August Prof. C.C. Brodeur conducted a one-day seminar on "Behaviour Modification" Learning Theory Applied to Teaching for the faculty of Mohawk College of Applied Arts and Technology in Hamilton and a one-day workshop on "Writing Instructional Objectives" at Sheridan College of Applied Arts and Technology in Oakville. Prof. Brodeur also attended a two-day seminar on "The Learning Systems Approach to Instruction and the Changing Role of the Educator" at St. Joseph's School of Nursing in Hamilton. He also visited the Centre for Learning and Development, for the study and improvement of University teaching at McGill University.

Prof. Helen Finnegan attended the annual Institute of the Faculty of Home Economics, University of Manitoba, May 26-28. The theme of this year's program was "The Family and its Environment".

Profs. Audrey Warner and Annette Yeager attended the annual conference of the Canadian University Teachers of Home Economics at the University of Manitoba, June 9 and 10. They also participated in the post-conference on Home Economics Teacher Education on June 11.

Dr. Maddalena Kuitunen represented The College in two debates broadcast over station CHIN on August 9 and August 18. The topic was "Lo studio dell'italiano nelle scuole secondarie dell'Ontario". ("The Progress of Italian in Ontario High Schools".)

Prof. J. Stirling was Chairman of the Ontario Folk Dance Camp held at Huron College, University of Western Ontario, in May. In June, Prof. Stirling attended the Canadian Association of Health, Physical Education and Recreation Convention at the University of Waterloo, and the Bi-National Dance Conference sponsored jointly by the American and Canadian Associations of Health, Physical Education and Recreation also at Waterloo.

Prof. June Collard attended the American Association of Health Physical Education and Recreation Convention held in Detroit, and the Canadian Association of Health, Physical Education and Recreation Conference at the University of Waterloo in June. Also in June, Prof. Collard attended a workshop on Teaching Behaviour at McArthur College of Education at Queen's University, Kingston.

HYGIENE

From Aug. 29 to Sept. 3, Prof. D. Hewitt and Mrs. J.B. Milner attended the Sixth International Scientific Meeting of the International Epidemiological Association at Primosten, Yugoslavia, where they presented a paper entitled "Components of the Demand for Hospital Care". During March and April, Prof. Hewitt served on the panel set up by the National Heart and Lung Institute, Bethesda, in connection with the establishment and support of six Lipid Research Clinics in various parts of the United States.

Dr. J.E.F. Hastings has been seconded for the academic year 1971-72 to be director of a special project for the Conference of Health Ministers which will study various types of community health centres and recommend those believed to be most suitable for development in Canada by governments and others. He will be assisted by an expert committee, and special study consultants. The Community Health Centre Project address is Suite 623, 55 St. Clair Avenue East, Toronto 7.

BUSINESS

Prof. W.B. Coutts delivered a paper entitled "Some Observations on the AUCC-CAUT-CAUBO Cost Study" to the Canadian Section of the Association of Institutional Research at the annual meeting in Denver, Colo. on May 17.

Prof. J.H.G. Crispo testified before the Standing Senate Committee on National Finance on "Collective Bargaining and Inflation" on May 12, in Ottawa. He addressed a McGill University Conference on "Collective Bargaining in the Public Service" on May 28; and attended the annual meetings of the Canadian Industrial Relations Research Institute on June 16 and 17 at York University. He also addressed the Canadian Institute of Management on "The Public's Interest in Collective Bargaining" on June 24. in Ottawa.